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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/529,687 | 03/29/2005 | Helmar Van Santen | NL 030437 | 8416 |

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

| EXAMINER | |
|---|---|
| VERDERAME, ANNA L | |
| **ART UNIT** | **PAPER NUMBER** |
| 1795 | |

| MAIL DATE | DELIVERY MODE |
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| 11/13/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/529,687 | VAN SANTEN ET AL. | |
| | Examiner | Art Unit | |
| | Anna L. Verderame | 1795 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/11/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

1. Claims 5-11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim depends from another multiple dependent claim See MPEP § 608.01(n). Accordingly, the claims 5-11 will not been further treated on the merits.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 provides for the use of " a resin composition as disclosed in any one of claims 1-4", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. 2002/0106476 in view of Bloom et al. 4,315,269, McDufee et al. 4,389,428 and SYLGARD material safety data sheet.

Hirai et al. teaches optical recording media as shown in table 1 comprising a substrate, a first dielectric layer, a indium-doped phase change recording layer, a second dielectric layer, a reflective layer and a protective layer made of a UV-curing resin(0070). When the write/retrieve light is incident on the substrate side, the protective layer preferably has a thickness of 0.1-100 micrometers, more preferably 1 to 50 micrometers. When the write/retrieve light is incident on the protective layer, the protective layer preferably has a thickness of 1 to 300 micrometers more preferably 10 to 200 micrometers, and particularly preferably 50 to150 micrometers(0054). The examiner interprets this disclosure to mean that an alternative embodiment to those of table one in which the reflective layer is formed on the PC substrate and light is shone through the protective layer. Materials for the dielectric layer are disclosed at (0048) and include $Si_3N_4$. Materials for the reflective layer are disclosed at (0052). Use of Al-alloys in particular is disclosed. The examiner notes that reflective layers act as heat-dissipating layers due to their high thermal conductivity. Materials for the phase-change

recording layer including InSbTe, AgInSbTe, $AgInTe_2$, $CuInTe_2$, InTe, and others are disclosed at (0040). **Double-sided optical recording media are disclosed at (0035).** Protective layers are disclosed at (0053). Media according to the invention of this application are recorded using a laser having a wavelength in the range from 200 to 900nm(0034).

Hirai et al. does not teach the specific composition for the protective layer as recited in the instant claims.

Bloom et al. discloses an optical recording medium in example 4 comprising a gold reflecting layer formed on a glass disc, a dye recording layer, and a silicone protective layer formed of Dow Corning's Sylgard 184. The thickness of the silicone resin layer is 0.1 millimeters. The resulting recording medium is recorded using a laser having a wavelength of 488nm as in example 1(7/20-40). The thickness of the overcoat(protective layer) is preferably between 0.05 millimeters and 1 millimeter. The illustration on the front of the patent shows an optical recording medium which is recorded by shining light through the overcoat(protective) layer 120. Bloom et al. teaches that materials used for the overcoat layer are preferably optically transparent and non-scattering at the light recording and readout wavelength(3/13-15).

The medium disclosed by Bloom et al. is not recorded in the UV region, including preferably the region of between 230-270nm. It could be argued that the materials used by Bloom et al. would not be UV-transparent.

The applicant cites Dow Corning's SYLGARD 184 as a preferred material for use in the cover layer at (0028) in the pre-pub.

The last page of the Material Safety Data Sheet(MSDS) for SYLGARD 184 discloses that the composition consists of 40-70Wt% Dimethyl,methylhydrogen siloxane, 15-40wt% dimethyl siloxane, dimethylvinyl-terminated, 10-30% dimethylvinylated and trimethylated silica, and 1-5wt% tetramethyl tetravinyl cyclotetrasiloxane.

The disclosure of the MSDS confirms that the composition of SYLGARD 184 meets the limitations recited in instant claims 2-4.

McDufee et al. is used for its disclosure that SYLGARD 184 is UV-transparent [(2/24) and (2/47-48)].

It would have been obvious to one of ordinary skill in the art to modify the optical recording medium of Hirai et al. comprising a substrate, a reflective layer, a dielectric layer, a indium doped phase change recording layer, a dielectric layer, and a protective layer through which the recording/readout light having a wavelength of between 200-900 nm is shone, by forming the protective layer using SYLGARD 184 based on the example of Bloom et al. and with the reasonable expectation that the protective layer will be transparent and non-scattering when wavelengths in the ultraviolet range are used to record the medium based on the disclosure of McDufee et al.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Ohsawa et al. 2002/0176971- Ohsawa et al. teaches a two layer optical recording medium as shown in figure 1. A spacer layer is placed between the two

recording layers L1 and L2 and light is shone through the cover layer. Each of the recording layers L1 and L2 has a laminate structure comprised of a phase change recording material such as Ag-In-Sb-Te and a glass protection layer of ZnS-$SiO_2$(0048). Cover layer and spacer layer are discussed at(0046-0047). **The spacer layer should have a high transmittance at the wavelength of light used for recording(0005).**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna L. Verderame whose telephone number is (571)272-6420. The examiner can normally be reached on M-F 8A-4:30P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571)272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ALV

MARK F. HUFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700